

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

COMPLETE LISTING OF THE CLAIMS:

Claims 1-71 : (Canceled)

Claim 72 : (New) A communications system, comprising:

a common device;

a plurality of higher layer devices;

a bus for communicating data traffic comprising data in asynchronous transfer mode (ATM) form and data in adaptation layer type 2 (AAL2) form between the common device and the higher layer devices, the bus including lines for carrying data and control signals, the data in AAL2 form including an AAL2 mini-cell associated with a means of identification of at least one of a source and a destination of the mini-cell; and

the devices including discrimination means for discriminating between the two forms of the data traffic.

Claim 73 : (New) The communications system of claim 72, in which the means of identification includes an ATM header.

Claim 74 : (New) The communications system of claim 73, in which the data in AAL2 form is associated with an ATM virtual path (VP) and an ATM virtual channel (VC), in which the ATM header comprises a virtual path identifier (VPI) field and a virtual channel identifier (VCI) field; and the VPI and VCI fields being used for determining the associated VP and VC, respectively.

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Claim 75 : (New) The communications system of claim 72, in which the means of identification includes a pulse code modulation (PCM) circuit identifier.

Claim 76 : (New) The communications system of claim 72, in which the means of identification includes an identity of a synchronous digital hierarchy (SDH) virtual container.

Claim 77 : (New) The communications system of claim 72, in which the common device includes an ATM physical layer (PHY), and in which the plurality of higher layer devices includes an ATM layer and an AAL2 layer.

Claim 78 : (New) The communications system of claim 72, in which the discrimination means includes means for using a control signal from the bus for discriminating between the two forms of the data traffic.

Claim 79 : (New) The communications system of claim 78, in which the control signal is a start of cell (SOC) signal.

Claim 80 : (New) The communications system of claim 79, in which the discrimination means includes means to discriminate between the two forms of the data traffic depending on a number of clock cycles that the SOC signal is active.

Claim 81 : (New) The communications system of claim 78, in which the control signal is an additional signal.

Claim 82 : (New) A communications system, comprising:

- a common device;
- a plurality of higher layer devices;

a bus for communicating data traffic comprising data in asynchronous transfer mode (ATM) form and data in adaptation layer type 2 (AAL2) form between the common device and the higher layer devices, the bus including lines for carrying data and control signals; and

the devices including discrimination means for discriminating between the two forms of the data traffic, the discrimination means including means for using a field of the data traffic for discriminating between the two forms of the data traffic.

Claim 83 : (New) The communications system of claim 82, in which the data traffic includes a user defined field (UDF) in which the field used for discriminating is the UDF.

Claim 84 : (New) The communications system of claim 82, in which the data in AAL2 form includes an AAL2 mini-cell, in which the data in ATM form includes an ATM cell, and in which the field used for discriminating includes a fifth octet of the cells.

Claim 85 : (New) The communications system of claim 84, in which the fifth octet of the AAL2 mini-cell includes a channel identification (CID) field.

Claim 86 : (New) The communications system of claim 82, in which the bus includes lines for carrying address signals for selecting a device from the plurality of the higher layer devices.

Claim 87 : (New) The communications system of claim 82; and further comprising additional common devices, and in which the bus includes lines for carrying address signals for selecting a device from the common devices.

Claim 88 : (New) A method of communicating data traffic comprising data in asynchronous transfer mode (ATM) form and data in adaptation layer type 2 (AAL2) form via a bus between a common device and a plurality of higher layer devices, the bus including lines

for carrying data and control signals, the method comprising the steps of: discriminating between the two forms of the data traffic; and the data in AAL2 form including an AAL2 mini-cell associated with a step of identification of at least one of a source and a destination of the mini-cell.

Claim 89 : (New) The method of claim 88, in which the step of identification includes an ATM header.

Claim 90 : (New) The method of claim 89, in which the data in AAL2 form is associated with an ATM virtual path (VP) and an ATM virtual channel (VC), in which the ATM header comprises a virtual path identifier (VPI) field and a virtual channel identifier (VCI) field; and the VPI and VCI fields being used for determining the associated VP and VC, respectively.

Claim 91 : (New) The method of claim 88, in which the step of identification includes a pulse code modulation (PCM) circuit identifier.

Claim 92 : (New) The method of claim 88, in which the step of identification includes an identity of a synchronous digital hierarchy (SDH) virtual container.

Claim 93 : (New) The method of claim 88, in which the common device includes an ATM physical layer (PHY), and in which the plurality of higher layer devices includes an ATM layer and an AAL2 layer.

Claim 94 : (New) The method of claim 88, in which the discrimination step includes the step of using a control signal from the bus for discriminating between the two forms of the data traffic.

Claim 95 : (New) The method of claim 94, in which the control signal is a start of cell (SOC) signal.

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Claim 96 : (New) The method of claim 95; and further comprising the step of monitoring the SOC signal, and in which the discrimination step is performed by discriminating between the two forms of the data traffic depending on a number of clock cycles that the SOC signal is active.

Claim 97 : (New) The method of claim 94, in which the control signal is an additional signal.

Claim 98 : (New) A method of communicating data traffic comprising data in asynchronous transfer mode (ATM) form and data in adaptation layer type 2 (AAL2) form via a bus between a common device and a plurality of higher layer devices, the bus including lines for carrying data and control signals, the method comprising the step of: discriminating between the two forms of the data traffic by using a field of the data traffic for discriminating between the two forms of the data traffic.

Claim 99 : (New) The method of claim 98, in which the data traffic includes a user defined field (UDF) in which the field used for discriminating is the UDF.

Claim 100 : (New) The method of claim 98, in which the data in AAL2 form includes an AAL2 mini-cell, in which the data in ATM form includes an ATM cell, and in which the field used for discriminating includes a fifth octet of the cells.

Claim 101 : (New) The method of claim 100, in which the fifth octet of the AAL2 mini-cell includes a channel identification (CID) field.

Claim 102 : (New) The method of claim 98, in which the bus includes lines for carrying address signals for selecting a device from the plurality of the higher layer devices.

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Claim 103 : (New) The method of claim 98; and further comprising additional common devices, and in which the bus includes lines for carrying address signals for selecting a device from the common devices.

Claim 104 : (New) The method of claim 98, in which the field used for discriminating is one of a virtual channel identifier (VCI) field and a virtual path identifier (VPI) field.

Claim 105 : (New) The method of claim 98, in which the data traffic includes a pulse code modulation (PCM) field, and in which the field used for discriminating is the PCM field.

Claim 106 : (New) A method of communicating data traffic comprising data in asynchronous transfer mode (ATM) form and data in adaptation layer type 2 (AAL2) form via a bus between a plurality of common devices and a plurality of higher layer devices, the bus including lines for carrying data, control and address signals, the address signals being used for selecting one of the devices, the method comprising the step of: discriminating between the two forms of the data traffic.
